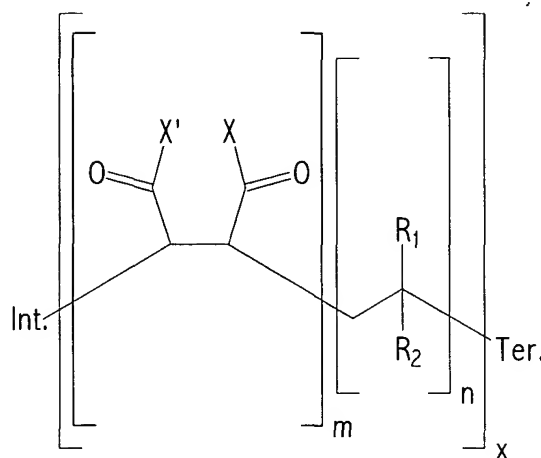


WHAT IS CLAIMED IS:

1. An esterified polyalkene/unsaturated acidic reagent copolymer which is the reaction product of a polyol and a copolymer of the general formula:



wherein X and X' in each repeating unit of the copolymer are independently selected from the group consisting of —OH; —O—R₃ wherein R₃ is a lower alkyl of 1 to 6 carbon atoms; or taken together are —O— to form a succinic anhydride group; n is a whole integer from 1 to 3; R₁ is a lower alkyl of 1 to 6 carbon atoms; R₂ is a polyalkyl group having about 9 to about 200 carbon atoms; m is a whole integer of from 1 to 3; x is a number greater than 1 up to 20; Int. is at least one initiating radical; and Ter. is at least one terminating group; and wherein the copolymer has a succinic ratio of about 1.

2. The esterified copolymer of Claim 1, wherein R₁ is methyl and R₂ is polyisobutyl.

3. The esterified copolymer of Claim 1, wherein R₂ is polyisobutyl having about 15 to about 100 carbon atoms.
4. The esterified copolymer of Claim 1, wherein R₂ is polyisobutyl having about 24 to about 80 carbon atoms.
5. The esterified copolymer of Claim 1, wherein R₂ is polyisobutyl having about 28 to about 50 carbon atoms.
6. The esterified copolymer of Claim 1, wherein R₂ is polyisobutyl having a number average molecular weight of about 210 to about 1400.
7. The esterified copolymer of Claim 1, wherein R₂ is polyisobutyl having a number average molecular weight of about 336 to about 1120.
8. The esterified copolymer of Claim 1, wherein R₂ is polyisobutyl having a number average molecular weight of about 350 to about 700.
9. The esterified copolymer of Claim 1, wherein the polyalkyl group is derived from a polyalkylene having at least 20 percent of an alkylvinylidene isomer.
10. The esterified copolymer of Claim 9, wherein the polyalkyl group is derived from a polyalkylene having at least 50 percent of an alkylvinylidene isomer.

11. The esterified copolymer of Claim 1, wherein X and X' taken together are —O— to form a succinic anhydride group.

12. The esterified copolymer of Claim 1, wherein the polyol is of the formula $R''(OH)_y$ wherein R'' is a hydrocarbon radical and y is an integer representing the number of hydroxy radicals and has a value of 2 to about 10.

13. The esterified copolymer of Claim 1, wherein the polyol is selected from the group consisting of ethylene glycol, di(ethylene glycol), tri(ethylene glycol), di(propylene glycol), tri(butylene glycol), penta(ethylene glycol), glycerol, pentaerythritol, 2,4-hexanediol, pinacol, erythritol, arabitol, sorbitol, mannitol, 1,2-cyclohexanediol, xylylene glycol, 1,3,5-cyclohexanetriol and mixtures thereof.

14. The esterified copolymer of Claim 1, wherein the polyol is pentaerythritol.

15. The esterified copolymer of Claim 1, having a number average molecular weight of about 600 to about 30,000.

16. The esterified copolymer of Claim 1, having a number average molecular weight of about 5,000 to about 25,000.

17. The esterified copolymer of Claim 1, having a number average molecular weight of about 10,000 to about 20,000.
18. The esterified copolymer of Claim 1, which is an alternating copolymer.
19. The esterified copolymer of Claim 1, wherein the reaction product is from about 1 to about 99% esterified.
20. The esterified copolymer of Claim 1, wherein the reaction product is from about 20 to about 80% esterified.
21. The esterified copolymer of Claim 1, wherein the reaction product is from about 40 to about 70% esterified.
22. A process for preparing an esterified copolymer, said process comprising reacting a polyol with a copolymer consisting essentially of the reaction product obtained from the copolymerization of one or more polyalkenes having from about 9 to about 200 carbon atoms with one or more unsaturated acidic reagents in the presence of one or more free radical initiators.
23. The process of Claim 22, wherein the polyalkene is a polyisobutylene.

24. The process of Claim 23, wherein the polyisobutylene has about 15 to about 100 carbon atoms.

25. The process of Claim 23, wherein the polyisobutylene has about 24 to about 80 carbon atoms.

26. The process of Claim 23, wherein the polyisobutylene has about 28 to about 50 carbon atoms.

27. The process of Claim 22, wherein at least 20 percent of the total polyalkene is an alkylvinylidene isomer.

28. The process of Claim 22, wherein at least 50 percent of the total polyalkene is an alkylvinylidene isomer.

29. The process of Claim 23, wherein the polyisobutylene has a number average molecular weight of about 210 to about 1400.

30. The process of Claim 23, wherein the polyisobutylene has a number average molecular weight of about 336 to about 1120.

31. The process of Claim 23, wherein the polyisobutylene has a number average molecular weight of about 350 to about 700.

32. The process of Claim 22, wherein the unsaturated acidic reagent is maleic anhydride.

33. The process of Claim 22, wherein the polyol is of the formula $R''(OH)_y$ wherein R'' is a hydrocarbon radical and y is an integer representing the number of hydroxy radicals and has a value of from 2 to about 10.

34. The process of Claim 22 wherein the polyol is selected from the group consisting of ethylene glycol, di(ethylene glycol), tri(ethylene glycol), di(propylene glycol), tri(butylene glycol), penta(ethylene glycol), glycerol, pentaerythritol, 2,4-hexanediol, pinacol, erythritol, arabitol, sorbitol, mannitol, 1,2-cyclohexanediol, xylylene glycol, 1,3,5-cyclohexanetriol and mixtures thereof.

35. The process of Claim 22, wherein the polyol is pentaerythritol.

36. The process of Claim 22, wherein the esterified copolymer has a number average molecular weight of about 600 to about 30,000.

37. The process of Claim 22, wherein the esterified copolymer has a number average molecular weight of about 5,000 to about 25,000.

38. The process of Claim 22, wherein the esterified copolymer has a number average molecular weight of about 10,000 to about 20,000.

39. The process of Claim 22, wherein the copolymer is an alternating copolymer.

40. The process of Claim 22, wherein the esterified copolymer is from about 1 to about 99% esterified.

41. The process of Claim 22, wherein the esterified copolymer is from about 20 to about 80% esterified.

42. The process of Claim 22, wherein the esterified copolymer is from about 40 to about 70% esterified.

43. A product prepared by the process comprising reacting one or more of the esterified copolymers of Claim 1 under reactive conditions with one or more cyclic carbonates.

44. The product of Claim 43, wherein the cyclic carbonate is ethylene carbonate.

45. A product prepared by the process comprising reacting one or more of the esterified copolymers of Claim 1 under reactive conditions with one or more of a

boron compound selected from the group consisting of boron oxide, boron halide, boric acid, and esters of boric acid.

46. The product of Claim 45, wherein the boron compound is boric acid.

47. A lubricating oil concentrate comprising from about 10 wt.% to about 90 wt.% of the esterified copolymer of Claim 1 and from about 90 wt.% to about 10 wt.% of an oil of lubricating viscosity.

48. A lubricating oil concentrate comprising from about 10 wt.% to about 90wt.% of the esterified copolymer of Claim 5 and from about 90 wt.% to about 10 wt.% of an oil of lubricating viscosity.

49. A lubricating oil concentrate comprising from about 10 wt.% to about 90wt.% of the esterified copolymer of Claim 8 and from about 90 wt.% to about 10 wt.% of an oil of lubricating viscosity.

50. A lubricating oil concentrate comprising from about 10 wt.% to about 90 wt.% of the product of Claim 43 and from about 90 wt.% to about 10 wt.% of an oil of lubricating viscosity.

51. A lubricating oil concentrate comprising from about 10 wt.% to about 90 wt.% of the product of Claim 45 and from about 90 wt.% to about 10 wt.% of an oil of lubricating viscosity.

52. A lubricating oil composition comprising a major amount of an oil of lubricating viscosity and a friction modifying effective amount of the esterified copolymer of Claim 1.

53. A lubricating oil composition comprising a major amount of an oil of lubricating viscosity and a friction modifying effective amount of the esterified copolymer of Claim 5.

54. A lubricating oil composition comprising a major amount of an oil of lubricating viscosity and a friction modifying effective amount of the esterified copolymer of Claim 8.

55. A lubricating oil composition comprising a major amount of an oil of lubricating viscosity and a friction modifying effective amount of the esterified copolymer of Claim 43.

56. A lubricating oil composition comprising a major amount of an oil of lubricating viscosity and a friction modifying effective amount of the product of Claim 45.

57. The lubricating oil composition of Claim 52, wherein the friction modifying effective amount of the esterified copolymer is about 0.1 to about 10 wt. %.

58. The lubricating oil composition of Claim 52, wherein the friction modifying effective amount of the esterified copolymer is about 0.5 wt. % to about 5 wt. %.

59. The lubricating oil composition of Claim 52, wherein the oil of lubricating viscosity is a power transmission fluid.

60. The lubricating oil composition of Claim 53, wherein the oil of lubricating viscosity is a power transmission fluid.

61. The lubricating oil composition of Claim 54, wherein the oil of lubricating viscosity is a power transmission fluid.

62. A fuel concentrate comprising an inert stable oleophilic organic solvent boiling in the range of about 150°F to about 400°F and about 5 to about 70 wt. % of the esterified copolymer of Claim 1.

63. A fuel concentrate comprising an inert stable oleophilic organic solvent boiling in the range of about 150°F to about 400°F and about 5 to about 70 wt. % of the esterified copolymer of Claim 5.

64. A fuel concentrate comprising an inert stable oleophilic organic solvent boiling in the range of about 150°F to about 400°F and about 5 to about 70 wt. % of the esterified copolymer of Claim 8.

65. A fuel concentrate comprising an inert stable oleophilic organic solvent boiling in the range of about 150°F to about 400°F and about 5 to about 70 wt. % of the product of Claim 43.

66. A fuel composition comprising a major amount of a hydrocarbon fuel and a minor friction modifying effective amount of the esterified copolymer of Claim 1.

67. A fuel composition comprising a major amount of a hydrocarbon fuel and a minor friction modifying effective amount of the esterified copolymer of Claim 5.

68. A fuel composition comprising a major amount of a hydrocarbon fuel and a minor friction modifying effective amount of the esterified copolymer of Claim 8.

69. A fuel composition comprising a major amount of a hydrocarbon fuel and a minor friction modifying effective amount of the product of Claim 43.

70. The fuel composition of Claim 66, wherein the hydrocarbon fuel is a diesel fuel.

71. The fuel composition of Claim 67, wherein the hydrocarbon fuel is a diesel fuel.

72. The fuel composition of Claim 68, wherein the hydrocarbon fuel is a diesel fuel.

73. The fuel composition of Claim 69, wherein the hydrocarbon fuel is a diesel fuel.

74. A method for improving the torque capacity, low temperature operability and anti-shudder durability of a power transmission lubricating oil composition which comprises adding a minor effective amount of the esterified copolymer of Claim 1 to a power transmission fluid.

75. A method for improving the torque capacity, low temperature operability and anti-shudder durability of a power transmission lubricating oil composition which comprises adding a minor effective amount of the esterified copolymer of Claim 5 to a power transmission fluid.

76. A method for improving the torque capacity, low temperature operability and anti-shudder durability of a power transmission lubricating oil composition which comprises adding a minor effective amount of the esterified copolymer of Claim 8 to a power transmission fluid.

77. A method for improving the fuel economy of a diesel engine which comprises operating the diesel engine with a fuel composition comprising (a) a major amount of a diesel fuel and (b) a minor fuel economy improving effective amount of the esterified copolymer of Claim 1.

78. A method for improving the fuel economy of a diesel engine which comprises operating the diesel engine with a fuel composition comprising (a) a major amount of a diesel fuel and (b) a minor fuel economy improving effective amount of the esterified copolymer of Claim 5.

79. A method for improving the fuel economy of a diesel engine which comprises operating the diesel engine with a fuel composition comprising (a) a major amount of a diesel fuel and (b) a minor fuel economy improving effective amount of the esterified copolymer of Claim 8.